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Real estate decarbonisation:

Strategies for enhanced investment value and green credentials

In association with Siemens

Siemens develops digital tools for energy efficiency

Credit Suisse fund on track with decarbonisation

Navigator platform optimises real estate

Real estate decarbonisation:

Strategies for enhanced investment value and green credentials

By James Williams

Reducing the carbon footprint of buildings and enhancing sustainability are fast becoming business critical issues for institutional real estate investors. But in order to implement an effective green strategy to lower one's carbon footprint, having access to detailed building performance data and analytics is vital. This report discusses how Siemens is able to achieve this to help investors enhance the value of their real estate portfolios.

Towards low carbon real estate

On average, energy consumption accounts for 40% of the lifecycle costs of buildings. For those wishing to optimise their real estate and demonstrate green credentials, and compliance with global standards, such as Europe's Energy Efficiency Directive (EED) and LEED (Leadership in Energy & Environmental Design), commonly used in the US, Siemens is able to plot a path to greater transparency and performance.

This is empowering real estate owners to identify areas of improvement and develop customised energy efficiency programmes, which can then be tested against international market benchmarks and internal benchmarks.

A recent study by Carbon War Room[1] analysed the performance of REITs using a Global Real Estate Sustainability Benchmark

dataset consisting of 56,000 buildings worth USD2.1 trillion. The study found that REITs with a higher sustainability ranking not only performed better in terms of the return on assets but also the return on equity.

To further illustrate the point, on 10th September 2016, *The Economist*[2] featured an article on green investing and referenced BlackRock, one of the world's biggest fund management groups. BlackRock believes it is possible "to create a portfolio which tracks the MSCI World Index with an annual error of just 0.3% a year, yet comprises companies with carbon emissions 70% lower than the index as a whole", wrote *The Economist*.

Increasingly, investment funds are expected to be more transparent (particularly with investors) on their CO_2 footprint and, in addition, to take action to mitigate their footprint. The Portfolio Decarbonisation Coalition – an action-oriented coalition committed to quantifiable carbon footprinting – now convenes 25 investors overseeing the decarbonisation of USD600 billion in commitments out of USD3.2 trillion in assets under management.

Earlier this year, Credit Suisse Real Estate Investment Management launched a real estate fund that aims to achieve a top quartile ENERGY STAR score within three years, which Credit Suisse Real Estate Investment Management hopes to achieve by actively reducing energy consumption and CO_2 emissions and purchasing carbon reduction certificates to create a carbon neutral portfolio.

However, in order to initiate a green strategy, one needs the right ingredients: namely data, and people with the right skills to analyse that data to derive the right outcomes. This is where data-driven services such as those offered by Siemens, underpinned by the Navigator platform, come into play. Navigator provides the necessary data from buildings and systems, from which suitable efficiency measures – at the building or system level – can be derived by Siemens Service experts.

Moreover, Navigator provides real estate investment managers self-service insights and reports into their energy consumption, supply costs, compliance, and sustainability results – and the impact the services contracted from Siemens are having.

Siemens' Navigator platform in action

Selecting the right partner

Siemens' Building Technologies Division is at the vanguard for creating energy efficient green buildings and infrastructure spanning the commercial, industrial and public building space.

Hansjörg Sidler is the Sales Director for energy efficiency and leads the building performance and sustainability (BPS) sales team in Switzerland. He explains that the first step in engaging with portfolio decarbonisation is to speak with an expert partner, such as Siemens consultants who specialise in green buildings and optimisation programmes.

"They help to design a programme applicable to the client's needs. In the end, any large company has to go through a tendering process so you have to invite the right companies to engage in the process.

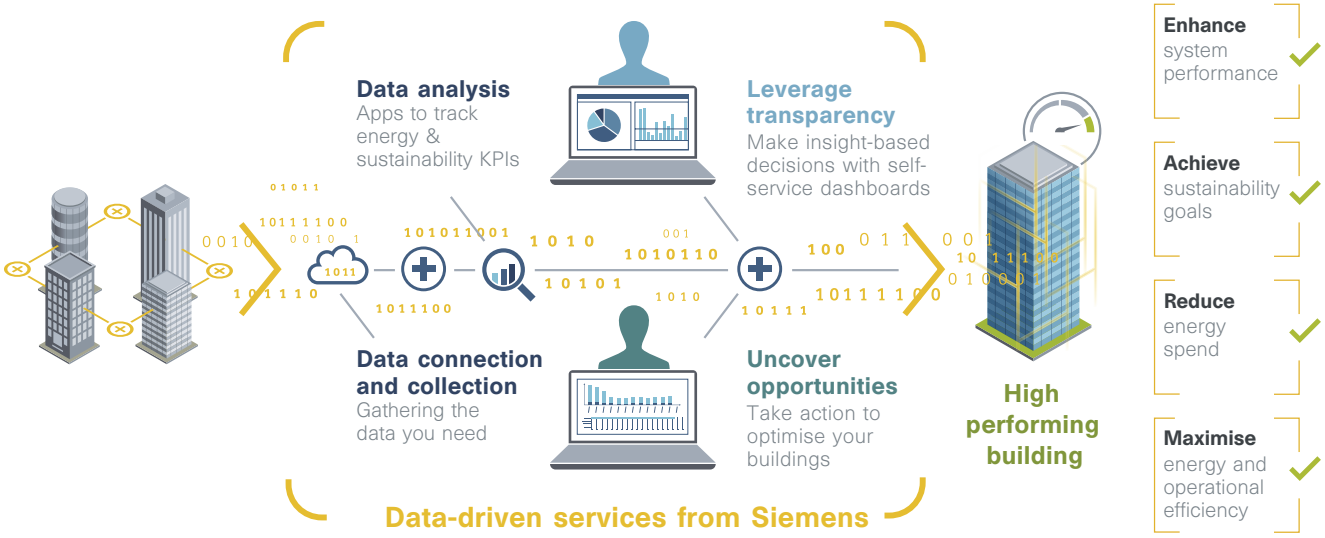
"It's only after we win a tender process that we share more fully our ideas. It's important as a supplier to bring in new ideas or different ways to do things, as each building is different," says Sidler.

Currently, Siemens has over 5,000 customers and 55,000 buildings connected to Navigator. It has garnered deep experience from over 7,500 energy efficiency projects worldwide.

In 2012, it entered into partnership with Credit Suisse Real Estate Investment Management and as Sidler comments: "We see other real estate companies thinking about building decarbonisation and are starting to engage in discussions with us.

Navigator – the cloud-based energy and sustainability platform

Turning data into results across your entire building portfolio



Awareness is certainly growing with respect to improving building energy efficiency and sustainability. I think this trend will continue, and we will see more of the type of partnerships we have with Credit Suisse Real Estate Investment Management. This is also because CO_2 reduction and sustainability are an important part of non-financial reporting requirements. And you can't easily measure and report them unless you have the right technology and skills."

Whether it is banks, investment groups, etc, or institutional pension plans: they like to be able to measure things.

"That is precisely what we offer," continues Sidler. "We can measure CO_2 emissions and the overall energy efficiency of buildings, and monitor them against pre-agreed targets.

"That is what our clients like with our services: they always know where they are against their goals, and can act more quickly on any deviation. For example, you can purchase buildings with LEED certification. But unless you maintain and operate them exactly according to the parameters of the certification, you can never be sure that the performance meets expectations. With Siemens energy and sustainability services, clients can directly measure and monitor the performance of buildings and analyse the results."

Certified buildings use between 25 and 45% less energy. However, in-use energy consumption can be 2 to 10 times higher than compliance calculations carried out during the building design stage[3]. Many factors impact a building's in-use performance: occupancy, unregulated equipment, buildings or systems not operated as intended at certification... all of this can be uncovered by looking at the data buildings generate, and generate big savings.

"I think for investors, this is something that they really appreciate, as it impacts the buildings' performance as an investment too," suggests Sidler.

One particular study[4] showed that companies with the highest sustainability credentials outperformed others on the stock market by nearly 50% over an 18-year period.

Real estate investment managers will typically have some buildings in their portfolios that are greener than others – i.e. newer buildings with newer HVAC systems and metering technologies. Others will be older and perhaps less efficient but as a general rule, the largest buildings consume the highest amount of energy.

Considering the fact that energy accounts for 40% of a building's lifecycle costs, determining how and where to focus on enhancing the green credentials and ROI of a real estate portfolio will therefore depend on the size and age of buildings.

Siemens will often devise an energy efficiency programme based on the following tiered system:

- Tier 1 – the worst performing (largest) buildings. Siemens engineers will go on site and do an energy audit to come up with an energy efficiency proposal to improve the energy and cost performance of the building.
- Tier 2 – overall energy consumption of the buildings is not significant but by applying control strategies, the facility can be run in a more optimal way.
- Tier 3 – small buildings that have a low energy consumption.

According to Sidler, the more complex the building is, the more Siemens can optimise it.

"When we do optimisation, the overall target that should be achievable is a 10% reduction in CO_2. The more investment, the more we can potentially reduce emissions by 20%, 30% or higher, depending on the building.

"In Switzerland there is an LEED Platinum rated building. It also has the Swiss Minergie-ECO certificate. At the time, the client asked us if we could optimise the comfort of the building. Not only did we achieve this, we also decreased electricity consumption by 15%," confirms Sidler.

This particular building is connected to the Siemens Operation Center in Steinhausen (canton of Zug), where Siemens service experts monitor the energy consumption of client buildings online in near real-time, receiving data every 15 minutes.

"We cannot optimise any building if we cannot see what is happening; the more complex the building, the more likely it will be connected to the Operation Center," adds Sidler.

It is not only optimisation programmes that Siemens can offer its clients, but also better system or infrastructure capacity planning. Sidler explains that for one particular client, Siemens engaged in a specific re-cooling project. This involved replacing one of the four cooling machines with a green cooling machine that uses the latest technology.

"Now, the other three cooling machines are on standby. In the autumn and winter, the new system we installed uses cold air from outside to cool down the whole building instead of relying on four machines; hence reducing the energy consumption of the building," explains Sidler.

"When we do optimisation, the overall target that should be achievable is a 10% reduction in CO_2. The more investment, the more we can potentially reduce emissions by 20%, 30% or higher, depending on the building."

Hansjörg Sidler, Siemens

Not all improvement measures are made equal

Broadly speaking, Siemens provides energy and sustainability services to lower the energy consumption, supply costs and CO_2 emissions for single real estate, as well as real estate portfolios held by institutional real estate investors. These services are provided on two levels.

Firstly, Siemens helps clients define a strategy and set goals for their real estate energy and sustainability improvements.

Secondly, Siemens provides performance services that are targeted more at institutional real estate owners who wish to create value by improving the energy performance and sustainability of real estate assets.

Strategy alone does not create impact. Rather, to create impact one needs to put things into practice.

As Jonas Fluri, Head of Portfolio and Strategy for Building Performance and Sustainability (BPS), Siemens Building Technologies, explains: "That's what performance services help our clients do. Our experts assess the actions that need to be done and help the customer put the right strategy into practice.

"For institutional real estate investors, our advisory and performance services help to increase the value of their RE portfolio and maximise returns for their end investors. Whereas for corporate real estate, the customers are focused on lowering operational costs, including energy costs, the institutional real estate customers are

Taipei 101, Taipei, Taiwan

The Taipei World Financial Center – or Taipei 101 – is the world's second-tallest building. The goal was to transform the office tower into a "green" building and to achieve LEED certification.

In July 2011, Taipei 101 was awarded LEED's highest quality level: platinum.

The custom solutions from Siemens allow the following annual savings:

- 3,000 tons of CO_2 emissions
- 28,000 tons or 10 percent of water consumption
- 1,261 tons or 10 percent of waste
- 4.8 million kWh or 10 percent of electric power
- EUR 520,000 thanks to reduced power consumption.

focusing on the development of the value of real estate by making it more attractive to tenants."

The Siemens service capabilities encompass:

- Strategy & planning
- Evaluation & assessment
- Programme implementation
- Ongoing services & optimisation
- Continuous measurement & reporting.

"For institutional real estate investors, our advisory and performance services help to increase the value of their RE portfolio and maximise returns for their end investors."

Jonas Fluri, Siemens

Energy Performance Contracting

Siemens has created a global group of experts with the skills and experience to make recommendations to clients on improvement measures, building system investment opportunities, etc, for which Siemens technology can also be used. Increasingly, these efficiency improvement programmes are financed through Energy Performance Contracts as a way to reduce or eliminate initial capital outlay.

Energy Performance Contracting (EPC) is a form of 'creative financing' for capital improvement which allows funding energy upgrades from cost reductions.

Under an EPC arrangement, an external organisation (ESCO) implements a project to deliver energy efficiency, or a renewable energy project, and uses the income stream from cost savings, or the renewable energy produced, to repay the costs of the project, including the costs of the investment. The ESCO will not receive payment unless the project delivers energy savings as expected.

"We continue to increase the number of energy optimisation project relationships with private clients and implement energy projects that are tailored to each client with the goal of alleviating energy costs and CO_2 emissions.

"Initially, we focused on the tactical side of things. Then, six or seven years ago, the topics of CO_2, sustainability and energy efficiency gathered force and we started engaging with institutional clients on a more strategic level," remarks Fluri.

In corporate real estate, many firms started to put building sustainability strategies in place ever since sustainability became a focus at corporate level, driven by the clear expectations from their stakeholders and shareholders. In institutional real estate, the demand for sustainable real estate comes from the tenants, who also have to support their corporate sustainability strategy.

The enhanced level of transparency that Siemens' data-driven services provide, enabled by the Navigator platform, allows Siemens' customers to constantly monitor and benchmark the performance of real estate assets. Siemens service experts use this data to ascertain where and when improvements need to be made within the infrastructure.

"Together with our clients we develop a set of Key Performance Indicators (KPIs) to track the performance of their real estate assets," explains Tobias Huber, Head Energy Services & Performance Contracting.

"The Navigator platform provides a highly customisable management dashboard to monitor large real estate portfolios, supported by geographical maps and a traffic light system. But Navigator is not just a management tool for C-level and portfolio managers – asset managers, facility managers and technical operators can drill down to view the performance of specific sites, buildings and meters for detailed analysis," says Huber.

"The overall idea – and why Navigator conforms with ISO 50001 frameworks – is that Navigator supports a systematic plan to optimise building facilities by reducing energy consumption and procurement costs. It's a lifecycle approach. You have a KPI, you implement some measures, and you see how those measures perform relative to the KPI," says Huber.

He summarises, that Navigator supports real estate investment decisions, improves CAPEX efficiency and reduces OPEX. And productivity gains in service can be realised

through predictive maintenance and remote-service delivery.

Helping clients achieve typical cost savings of 20%

Fluri estimates that the typical level of cost savings that Siemens helps clients achieve is in the region of 20%, depending on the maturity of the building stock.

"Some buildings might be old and under-maintained, and there are a lot of improvements that can be made. Newer buildings will often already have good performance and it might only be possible to make 5 to 10% improvements, operationally speaking," says Fluri. He adds that Siemens works with institutional real estate clients to determine where best they should start when looking to create or further enhance a sustainability programme.

"Maybe they want to reduce CO_2 emissions by a certain amount within a certain timeframe. We will help them to determine which buildings should be part of the first wave of reducing energy consumption: the low hanging fruit as it were. Whatever sustainability goals our customers have, we work with them to achieve their goals," confirms Fluri.

Moreover, thanks to Siemens' regulatory expertise, customers can bolster their market reputation by securing and maintaining accreditations, ensuring ongoing compliance with mandatory and voluntary building efficiency and reporting frameworks.

Digitalisation: A key enabler of real estate decarbonisation

The Navigator platform is the beating heart of Siemens' building efficiency and data management services capabilities.

Navigator seamlessly aggregates all the complex data one can collect from a building. This can be on the supply side, such as energy procurement data, and on the demand side, such as energy consumption data (equipment and assets).

"Navigator is a cloud-based platform, it is scalable and can process high volumes of complex data. Being vendor agnostic, we integrate to the ecosystem of our clients seamlessly and connect to existing databases, meters or 3rd party data provider", says Huber.

"Navigator supports a systematic plan to optimise building facilities by reducing energy consumption and procurement costs. It's a lifecycle approach."

Tobias Huber, Siemens

One of the benefits of BPS, when applied specifically to institutional real estate, is to increase asset value. There are no hard and fast figures, as each real estate portfolio is different, but Siemens estimates that buildings with green credentials enjoy 23% higher occupancy rates. By reducing energy costs, building performance improves, which in turn can help increase the overall value of the portfolio.

A number of studies that compared certified green buildings to non-certified buildings in the same sub-market found rental premiums to be up to 30 per cent higher[5]. In addition, evidence showed that higher levels of certification achieved higher sales premiums, including a number of examples for properties rated under the LEED and Green Star systems.

A second benefit is greater compliance. Siemens enables asset owners to demonstrate they are fulfilling the rules of the Energy Efficiency Directive (EED) in Europe, for example, and that they have a sustainability strategy in place that is being adhered to; this in turn can enhance market reputation.

Moreover, it can serve as an advantage to real estate investment managers, when acquiring buildings, that they have someone like Siemens helping them to build portfolios of green buildings.

An example of this is the sustainable Swiss real estate fund of Credit Suisse Real Estate Investment Management. It is a SIX-listed fund which invests in 44 properties in Switzerland with a total value of CHF 2'2563.3 million (as of June 30, 2016) and is the fifth largest Swiss real estate fund. Every building fulfils the requirements of the "greenproperty" quality seal developed by Credit Suisse Real Estate Investment Management for sustainable property.

Demonstrating that buildings comply with industry benchmarks such as ENERGY STAR is a positive message to convey to institutional investors, but it requires accurate and comparable performance data.

That is what Navigator provides, in varying degrees of granularity, which clients can use to benchmark the performance of their portfolios, and fulfil non-financial reporting requirements.

"We work with the customer internally to see where buildings in the portfolio are positioned relative to each other, and also externally to market benchmarks," says Fluri. "We ask customers to provide us with 12 or 24 months of energy consumption data, as well as static data on the infrastructure of the building, and from this we can decide whether or not it's worth our engineers doing an onsite visit. Within days, we prepare a report and come up with a preliminary proposal with the client based on the measures we think should be taken."

Collect and connect building performance data and it's analytics services is key to foster smart buildings

Visibility on real estate assets at your fingertips

Huber believes that the next evolution will be "the digitalisation of real estate: Real Estate 4.0". The world is increasingly moving towards internet-working of physical devices, vehicles and buildings – commonly referred to as the "Internet of Things". People and assets in building create an enormous amount of unstructured data. In the past, proprietary systems that control building functions such as HVAC or lighting have been operated standalone, often separated from mainstream IT systems. And energy data management, on its own, is not leveraging sufficient data from other sources.

"Cloud-based platforms allow various data streams to be combined for analytics and cognitive intelligence, to gain information for strategic decisions and operational actions." But as Huber observes: "You have so many disruptive digital technologies in other industries but real estate remains slightly behind the curve. What's not yet covered is the holistic view on asset performance of buildings in relation to sustainability, energy efficiency, but also tenant satisfaction and space utilisation."

That ability to drive insights into the actual performance of buildings is what Siemens brings to the table with its Navigator-enabled services. In short, the process is to connect, collect, and then analyse building data to derive improvement measures with the best ROI.

The power of Big Data

Collecting data to turn into information enhances transparency in the portfolio is a good foundation but it is essentially an investment before an institutional real estate investor can start the process of optimisation.

To connect buildings and foster smart buildings, in February 2016 the Siemens Buildings Technologies Division partnered with IBM to maximise the potential of connected buildings and the data they create to empower real estate owners and operators to drive business results and meet building-related KPI's.

As a result, Siemens develops integral solutions with IBM's software suites Maximo (asset management) and Tririga (workplace management) and envisages use cases to apply Watson IoT analytics. A cognitive building can anticipate, respond, and adapt.

"We at Siemens Building Performance & Sustainability see ourselves as part of an open ecosystem. This includes IBM platforms, but also SAP Hana for the jointly

developed Real Estate Cockpit and Siemens Mindsphere," confirms Huber.

There are various benefits to this collaboration that help give customers valuable information on their real estate portfolios at the click of a button. For example:

- Transparency on building types and multiple KPI's such as vacancy rates, cost per tenant, cost per sqm.
- Leveraging internal and external data on Siemens' Navigator platform to benchmark building performance and forecast operational budgets.
- Predictive analytics can be applied for fault detection and diagnosis so potential issues can be addressed before anything happens.
- Mobile applications can enable energy audits and creation of audit reports from anywhere.

Say the outside temperature is 33 degrees Celsius and a particular building is running both heating and cooling systems. In such a situation, one could quickly shut down the heating system on Navigator using programming code.

Using Big Data to drive insights

This ability to connect buildings, collect data, and monitor them from a single hub is just the latest example of how the Internet of Things is evolving. It is helping to drive the application of Big Data within the real estate space and underscore Huber's belief that the digitalisation of real estate is the next evolution.

"The real benefit is to those who have multiple buildings spread across multiple locations," says Huber, commenting on the use of Big Data. "The management overview afforded by Navigator gives real estate investors a decision matrix on where to invest to achieve better performance, and to quickly identify poor performance in the portfolio."

Using predictive analytics to connect the dots

Data points are partly available but not necessarily connected. With Navigator, it's about connecting those data points to come up with predictive information on the building's cooling load, heating load, etc. This information is then analysed and benchmarked by Siemens to identify continuous optimisation opportunities.

Having all this information at one's fingertips is leading to the use of predictive analytics on what needs to be adjusted in the future. For example, it could be used to identify issues with boilers or HVAC systems and replace them before they break down.

The benefits are not just measured in terms of optimising maintenance activities and reducing impact of equipment failure on the business. Studies show that improving the energy efficiency of the working environment can improve productivity by 11% to 23% depending on the initiatives undertaken.

"At the same time, globalisation has changed the nature of the working environment," continues Huber. Proper space management and utilisation is getting complex. "The ability to predict occupancy rates is something that is attracting more attention as customers apply new office concepts and want to see the improvements in real-time."

The case study – Credit Suisse Real Estate Investment Management

Credit Suisse Real Estate Investment Management has been a success story since the launch of the first real estate fund in 1938. It is ranked among the top 15 largest providers of real estate investments worldwide, is the third largest in Europe and the largest in Switzerland with USD45 billion in AuM**.

Credit Suisse Real Estate Investment Management looks after 1,300 properties in 20 different countries with the majority (approximately 1,200 buildings) located in Switzerland.

In the past, there were few options for systematically reviewing the savings and optimisation potential of portfolio properties. As such, back in 2009, Credit Suisse Real Estate Investment Management sought to define a sustainability strategy, built on two pillars.

"The first pillar is based on a realisation that the biggest potential to decarbonise the portfolio is to focus on existing buildings in the portfolio, for which we had no idea what our carbon footprint was, or how energy efficient the portfolio was," explains Roger

Baumann, COO and Head of Sustainability in Real Estate Investment Management at Credit Suisse.

"The second pillar relates to what we do with new building acquisitions. We developed our own ratings system for new construction projects, called the 'greenproperty' seal, which is based around the Swiss Minergie standard.

"This greenproperty seal is certified by our external valuation agents and we apply it to all new building projects that we acquire. We have over 90 properties that are greenproperty certified, equivalent to over 1 million square meters and CHF3 billion AuM."

Setting this strategy in place was the starting point. Then, in 2012, the World Wide Fund for Nature (WWF) conducted a thorough examination of the CO_2 reduction potential of the portfolio. They concluded that it would be able to cut the entire portfolio's CO_2 emissions by 44% by consistently applying technical measures. Moreover, the WWF suggested that monitoring of HVAC systems would offer the greatest potential.

"Optimising buildings is the fastest way to embark upon a decarbonisation path. We began looking for a partner to create an optimisation programme for our buildings in Switzerland; one who could measure and control energy efficiency. We selected Siemens and Wincasa (a real estate service provider) and embarked upon a five-year programme.

"The main target we set was to reduce CO_2 emissions by at least 10%, equivalent to 13,000 tons of carbon dioxide. Other goals we set were firstly, to increase transparency in the portfolio with more energy and carbon data. Secondly, to track the carbon goals we set. And thirdly, to use the data for benchmarking and reporting," explains Baumann.

Given that Credit Suisse Real Estate Investment Management's portfolio contains a huge variety of building stock, the idea was to monitor online the largest buildings in the portfolio responsible for 45 to 50% of total energy consumption. In addition, one can achieve the biggest savings in large buildings as part of an optimisation programme.

"We therefore structured the portfolio such that the 100 largest buildings would connect to Siemens Operation Centre to be monitored online. For the rest of the portfolio, we decided we would conduct an annual assessment of energy consumption. This is carried out by Wincasa and the data is fed into the Siemens Navigator platform. "

Twist Again in WankdorfCity, Bern, is the first SNBS 2.0 certified building in Switzerland

"Within a one-year cycle, we are able to collect data from almost all the buildings that we have in Switzerland and plan to expand this process to our international investments, too," says Baumann.

He says that over the last four years there are several examples where the measures taken have had a tangible impact on the buildings' tenants, most notably better comfort and lower energy bills.

At Siemens' operation centre, HVAC systems are continuously monitored, along with the consumption of oil, gas, electricity and water. Should measurements deviate from defined targets, the Siemens expert team can make the necessary system adjustments.

Achieving such an ambitious decarbonisation programme does not happen overnight. But thanks to the partnership with Siemens, Credit Suisse Real Estate Investment Management has four full years of data on the portfolio (2012 through 2015) with Baumann confirming that, based on the most recent set of data that Siemens provided in April this year, "we are well on track with the decarbonisation programme".

"I'm confident we will reach our 10% CO_2 reduction target. We have seen huge potential in some of our older larger buildings where we've already achieved a 15 to 20% reduction in CO_2."

Thanks to the access to the Navigator platform that comes with Siemens' services, Credit Suisse Real Estate Investment Management's portfolio managers are achieving a far greater level of transparency into the portfolio. The more data that Siemens collects, the more opportunities it will give Credit Suisse Real Estate Investment Management to leverage Big Data capabilities and begin to understand what further improvements can be made.

"Navigator is a great tool. Each year, we extract data from the platform and implement it into our portfolio management systems here in Zurich, as well as in Frankfurt," says Baumann, who also sees the digitalisation of real estate as an important trend.

"The more data we have the easier it becomes to get into areas such as predictive optimisation and maintenance. The Siemens platform lays the ground to better improve the way we manage and optimise our real estate assets. It's becoming increasingly important for our portfolio managers, not only to talk about net rents or net yields in the portfolio, but to make more transparent what improvements are being made in terms of the decarbonisation footprint of the portfolio," comments Baumann.

"I'm confident we will reach our 10% CO_2 reduction target. We have seen huge potential in some of our older larger buildings where we've already achieved a 15 to 20% reduction in CO_2."

Roger Baumann, COO and Head of Sustainability in Real Estate Investment Management at Credit Suisse

He believes that the more information available on real estate assets, the better able investment managers such as Credit Suisse Real Estate Investment Management can improve the quality of their portfolios. This in turn helps improve transparency, whereby energy efficiency measures being taken in the portfolio can be communicated to investors.

"The more knowledge you have on real estate energy efficiency, the more those assets will become valuable and sought after. Also, armed with such knowledge, we will be better placed to react to market regulation in the future," says Baumann, adding in conclusion:

"We have already talked to Siemens to extend the partnership beyond 2017 as we realise that optimising and monitoring buildings should be an ongoing process. We will probably end up with an arrangement, beyond 2017, where we set up a programme to optimise buildings in five-year cycles." ■

Foyer office building in Zug, Switzerland

Sources:
1. *http://carbonwarroom.com/sites/default/files/reports/Green_REITs_FINAL.pdf.*
2. *www.economist.com/news/finance-and-economics/21706517-getting-more-sophisticated-about-green-investing-acclimatising.*
3. *Innovate UK, "Building performance Evaluation programme from non-domestic projects", (January 2016).*
4. *Robert G. Eccles, Ioannis Ioannou and George Serafeim, 2011: "The impact of Corporate Sustainability on Organizational Processes and Performance".*
5. *World Green Building Council – The Business Case for Green Building (April 2013).*

** *Latest data point: September 30, 2016; includes assets under management in direct and indirect investment vehicles.*